

Coal

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Coal is an organically derived material. It is formed from the remains of decayed plant material compacted into a solid through millions of years of chemical changes under pressure and heat. As the organic maturity process continues, the buried plant material is transformed into different kinds of coal. In general, the longer coal is subjected to heat and pressure, the higher its grade and contained heat volume per unit weight. Bituminous coal and anthracite are high-rank coals, also known as hard coal. Bituminous coal is consumed for both metallurgical and thermal purposes. Anthracite, the highest rank coal, is often called smokeless and is consumed for both domestic and industrial purposes. Lignite and subbituminous are low-rank coals, also known as brown coals, consumed only for the generation of electricity.

Coal is the world's most abundant and widely distributed fossil fuel. The current proven world coal reserve is estimated at 1000 billion t spread over 70 countries. Coal is currently mined in more than 50 countries. Canada holds close to 10 billion t of coal reserves. Coal offers a long-term economical source of energy that, at current production levels, would last for more than 200 years, significantly longer than reserves of oil and gas.

The latest *Coal Information*, published by the International Energy Agency (which collects worldwide data on production, consumption and trade), shows the world's total coal output was 4.9 billion t in 2003, including 4 billion t of hard coal and 886 Mt of brown coal. The top 10 coal-producing countries were China (1502 Mt), the United States (970 Mt), India (366 Mt), Australia (339 Mt), Russia (267 Mt), South Africa (239 Mt), Germany (208 Mt), Poland (161 Mt), Indonesia (120 Mt), and Kazakhstan (78 Mt). Canada produces hard and brown (lignite) coal. Canadian coal production was 62 Mt in 2003.

Coal has been consumed as an energy source for hundreds of years. It provided the energy that boosted the industrial revolution of the 19th century and launched the electric era in the 20th century. Coal was the most important source of the world's primary energy until the late 1960s when it was overtaken by oil. Today, about 70% of the world's total coal production is consumed for electricity generation, providing about 39% of total world electricity. About 16% of Canada's electricity is generated by coal. Almost all primary steel production worldwide is based on pig iron from blast furnaces fed with coke from coal, and iron ore.

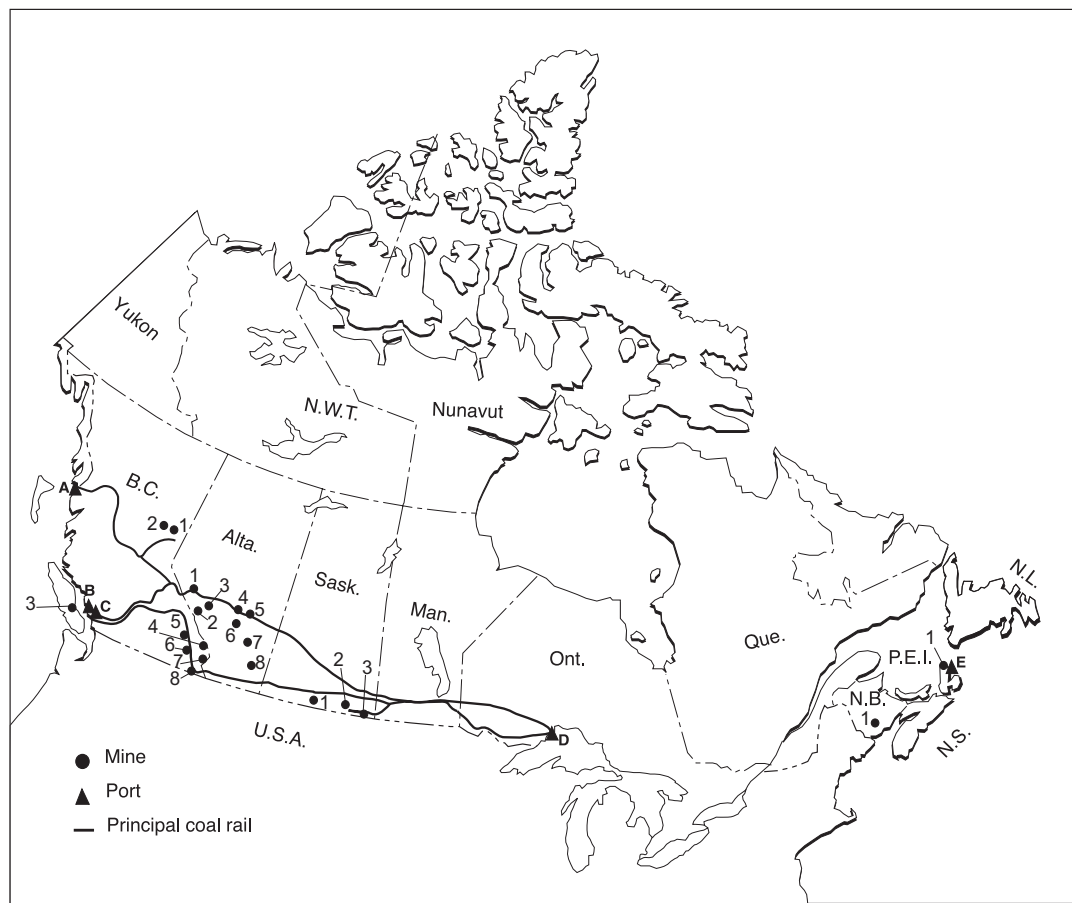
Coal is one of the top commodities hauled by rail in Canada. In 2003, 30 Mt of coal was hauled by rail compared to 34 Mt of coal hauled by rail in 2002. The majority of coal is hauled to Vancouver ports for shipment overseas.

CANADIAN DEVELOPMENTS

The Canadian coal industry plays an important role in the Canadian economy, both as a mining industry and as an energy provider. In 2003, there were 20 coal-producing mines in Canada employing approximately 4500 people. Canadian coal production essentially comes from 18 operating mines in three western provinces. Seven mines in the province of British Columbia produce bituminous coal, of which six mines produce coking coal for export and one produces thermal coal. The Bullmoose mine, located in Tumbler Ridge in northeastern British Columbia, closed in 2003 due to the depletion of coal reserves. Eight mines are located in the province of Alberta, of which three produce bituminous coal (two thermal and one coking) and five produce subbituminous coal. Three mines in Saskatchewan produce lignite. Two small-scale operations remain in the province of Nova Scotia and New Brunswick that produce bituminous thermal coal for power generation plants.

After a decade of restructuring, the Canadian coal industry has comprised two large companies since early 2003. Elk Valley Coal Corp. engages in coking coal production and exports and Luscar Coal Ltd. focuses on thermal coal production and domestic markets.

Figure 1
Principal Canadian Coal Mines and Ports



Numbers refer to locations on map above.

MINES

BRITISH COLUMBIA

- 1. Bullmoose
- 2. Willow Creek
- 3. Quinsam
- 4. Fording River
- 5. Greenhills
- 6. Elkview
- 7. Line Creek
- 8. Coal Mountain

ALBERTA

- 1. Obed Mountain
- 2. Luscar
- 3. Coal Valley
- 4. Highvale
- 5. Whitewood
- 6. Genesee
- 7. Paintearth
- 8. Sheerness

SASKATCHEWAN

- 1. Poplar River
- 2. Boundary Dam
- 3. Bienfait

NEW BRUNSWICK

- 1. Minto

NOVA SCOTIA

- 1. Stellarton

PORTS

BRITISH COLUMBIA

- A. Ridley
- B. Neptune
- C. Westshore

ONTARIO

- D. Thunder Bay

NOVA SCOTIA

- E. International Pier

Elk Valley Coal Corp. emerged as the world's second largest exporter of coking coal with five mines in the Elk Valley of British Columbia (Fording River, Coal Mountain, Greenhills, Elkview, and Line Creek) and one mine in Alberta (Luscar). The company's production capacity is approximately 25 Mt/y of coking coal.

Luscar Coal Ltd., owned by the Luscar Energy Partnership, operates seven surface mines in Alberta (Coal Valley, Obed Mountain, Highvale, Paintearth, Sheerness, Whitewood, and Genesee) and three mines in Saskatchewan (Poplar River, Boundary Dam and Bienfait). Combined these mines have a capacity of 40 Mt/y of bituminous, subbituminous and lignite thermal coal that is consumed mainly by domestic electric power generation.

The Quinsam Coal Corp. in British Columbia, owned by Hillsborough Resources Ltd., is the only underground mine currently in operation. Quinsam produces thermal coal for several cement plants in British Columbia and Washington State, and for local pulp mills. New Brunswick Coal, a subsidiary of New Brunswick Power Corp., also produces thermal coal for power generation. With the closure of Cape Breton Development Corp.'s operations in 2001, coal production in Nova Scotia was limited to several small-scale bituminous coal producers.

PRODUCTION

In 2003, Canada produced 62.2 Mt of coal, down 7% from 66.6 Mt in 2002. The decline was mainly in bituminous coal production, while subbituminous and lignite coal production was slightly less than the previous year's level. One of the reasons for the decline was the closure of the

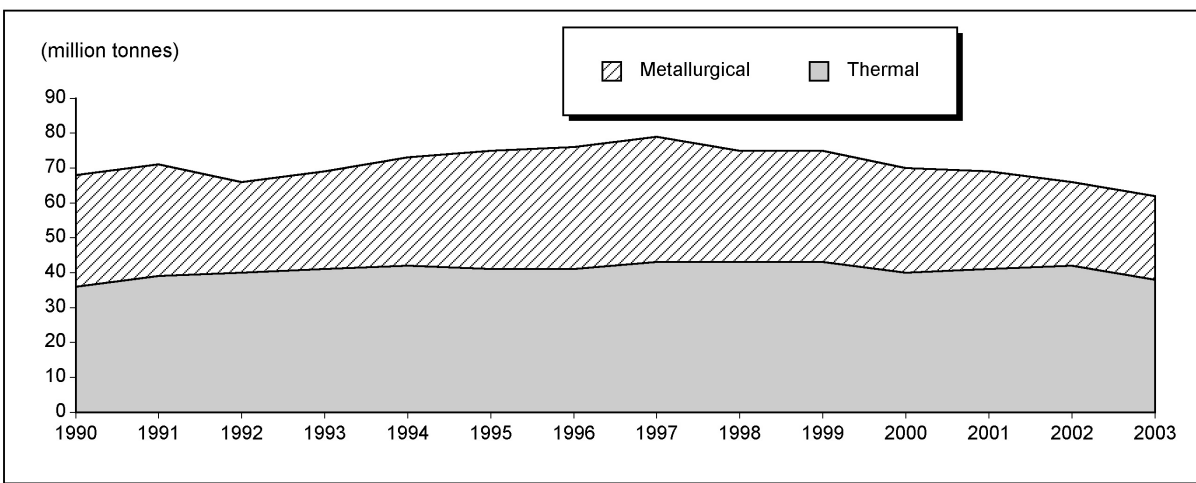
Bullmoose mine, which took out 1.1 Mt of coal from Canadian production. The suspension of Luscar's Obed Mountain mine also reduced Canadian coal production by 1 Mt. Luscar cited an oversupply of thermal coal in world markets as the reason for suspending operations. The Obed Mountain mine has produced bituminous thermal coal for both export and domestic customers since 1984 with a production capacity of 1.5 Mt/y. A reduction in production capacity at the Line Creek mine by Elk Valley Coal was another reason for the decline in production. Elk Valley Coal reduced its Line Creek mine's annual production to 2 Mt from its previously planned level of 3.5 Mt, citing a desire to reduce operating costs and increase overall corporate performance.

Alberta is Canada's largest coal-producing province. It produced 28.2 Mt of coal in 2003, a decline of 7% from 2002's output of 30.5 Mt. British Columbia's production was 23.1 Mt in 2003, down from the previous year's 24.4 Mt. Saskatchewan's production decreased by 6% from 11.4 Mt in 2002 to 10.7 Mt in 2003. All of Saskatchewan's and most of Alberta's output is under long-term contracts to supply coal to nearby coal-fired power generation plants. In Atlantic Canada, New Brunswick produced 141 000 t of thermal coal in 2003, exclusively used by coal-fired power generation plants. Nova Scotia produced a limited amount of thermal coal in 2003.

EXPORTS

Coal exports are vital to the Canadian coal industry with roughly 40% of Canada's total production being exported. Canada is the second largest supplier to the world's coking

Figure 2
Canadian Coal Production, 1990-2003



Sources: Natural Resources Canada; Statistics Canada.

coal markets. As a consequence of rising demand for coking coal on world markets, Canada's coking coal exports increased 3% in 2003 to 23.7 Mt from 2002 exports of 23 Mt. Canada's total coal exports remained at 25 Mt, the same level as in the previous year, ending the downward trend in Canadian exports that had been the phenomenon since 1998. The increase in exports was mainly to Europe and Latin America, which rose by 4% and 3%, respectively. Exports to the Middle East and North America also saw a moderate increase of 0.7% and 0.9%, respectively. Exports to Asia declined, and the Asian share of Canada's total exports slid from 64% in 2002 to 57% in 2003 due to reduced trade in Japan and South Korea. Nevertheless, Japan and South Korea continue to be the two largest export markets for Canadian coal. Exports to Japan were 7.7 Mt in 2003, a decrease of 17% from the previous year's 9.4 Mt. Exports to South Korea dropped to 3.7 Mt from the previous year's 4.5 Mt. The lost share of the Asian markets was absorbed by export increases to other regions. China emerged as a new coking coal importer, importing 670 000 t of coking coal from Canada and accounting for 3% of Canadian coking coal exports.

Canadian coal exports were mainly from Elk Valley Coal's five coal mines in British Columbia. In 2003, British Columbia exported 22.8 Mt of coking coal and 665 000 t of thermal coal, while Alberta exported 667 000 t of coking coal and 626 000 t of thermal coal.

Between 1997 and 2000, the price of seaborne hard coking coal dropped by more than 30% due to oversupply and a general economic downturn in some Asian countries. Following an economic recovery in Asia, rising demand for coking coal sparked price increases on world markets dur-

ing 2001 and 2002. Canadian coking coal producers achieved an average price of US\$44/t in the 2002 coal year (April 1, 2002, to March 31, 2003). In early 2003, Canadian coal producers settled contract prices with Japanese steel producers at US\$46/t f.o.b. Vancouver for the 2003 coal year. The average achieved price for the 2003 coal year was US\$42/t. In the second half of 2003, strong demand for coking coal worldwide prompted further price increases. Elk Valley Coal maintained full production capacity to meet the rising demand. By early 2004, Elk Valley Coal had pre-sold its entire projected yearly production. The company expects to reach an average price of US\$51/t in the 2004 coal year, an increase of 20% over 2003.

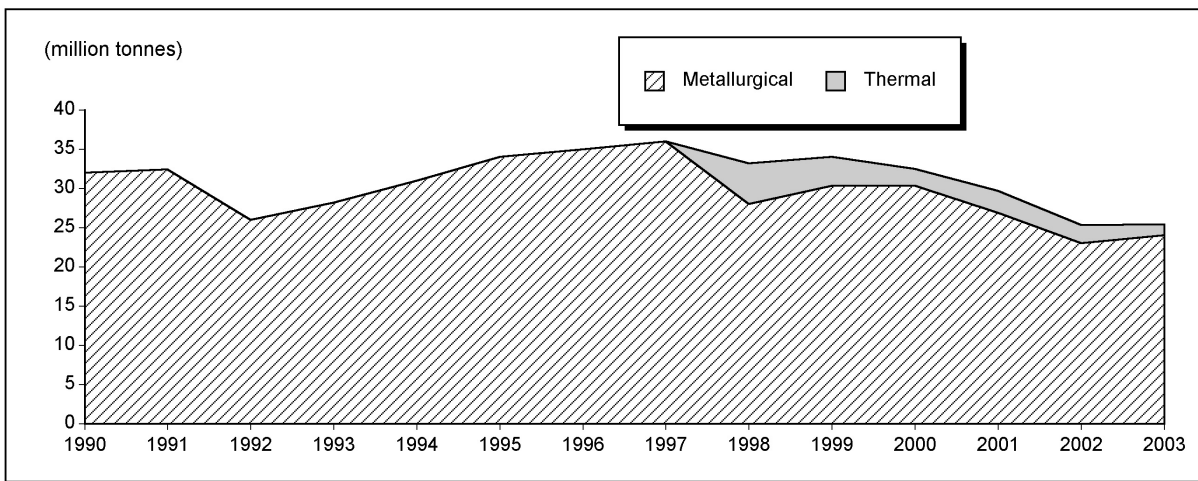
More than 95% of Canada's coal exports of 25 Mt are seaborne trade through coal-shipping terminals in Vancouver.

CONSUMPTION

Canadian annual coal consumption has been steady since 2000 at about 62 Mt/y. Canada's major consumption of coal is as fuel for its 23 coal-fired electricity power generation plants, which account for 90% of total Canadian coal consumption. The Canadian steel industry consumed roughly 7% of the total with the remaining 3% being consumed by other industrial and domestic consumers.

Alberta, the largest coal-consuming province, consumes about 25 Mt annually for electric power generation, accounting for 45% of the total coal consumption for electric power generation and for 40% of Canada's total coal consumption. Coal-fired power generation provides

Figure 3
Canadian Coal Exports, 1990-2003



Sources: Natural Resources Canada; Statistics Canada.

two thirds of Alberta's total electricity demand and is therefore crucial to the province's energy supply.

Ontario is the second largest coal-consuming province. Its annual coal consumption has been steady since 2000 at about 21 Mt. Electric power generation consumes approximately 17 Mt of coal each year, the steel industry consumes about 3-4 Mt, and other industries consume less than 1 Mt.

Saskatchewan's coal consumption has consistently been between 9 and 10 Mt each year, all consumed by electricity generation. Coal-fired plants generate about 62% of Saskatchewan's total electricity supply.

Nova Scotia consumed, on average, 3 Mt/y over the past four years, largely for electric power generation. New Brunswick consumed, on average, 1.3 Mt/y over the past four years for electric power generation while Quebec consumed about 700 000-800 000 t/y of coal over the past 10 years for non-electrical industrial purposes.

IMPORTS

Canada imported, on average, 22 Mt/y of coal over the past three years, of which 95% was imported by Ontario, Nova Scotia and New Brunswick. The imported coal was mainly for coal-fired power generation plants, accounting for 80% of Canada's total imports. The remaining 20% of imported coal, about 4 Mt, was consumed by the steel producers and other industries.

Ontario is reliant on imported coal as there are no coal-producing mines within the province. Imports were mainly from the United States, averaging 19 Mt/y for the past four years. Since the closure of Cape Breton Development Corp.'s two coal mines, Nova Scotia has also become a major coal-importing province. For the past three years, Nova Scotia has imported, on average, 2 Mt/y to supply coal-fired power generation plants. New Brunswick's coal imports have averaged 1.3 Mt/y over the past three years for consumption in power generation.

COAL PROJECTS

As worldwide demand for coking coal continues to rise, Elk Valley Coal is increasing production in addition to bringing on-line its deferred Cheviot project. The company has submitted a mine licence application to obtain approvals from the Alberta Energy and Utilities Board and Alberta Environment to develop the Cheviot Creek pit at its Cardinal River operation located near Hinton, Alberta. Operations are expected to commence by the fourth quarter of 2004. Initial production is anticipated at 1.4 Mt of coking coal with a work force of 120. The company is

also prepared to expand its production capacity to 2.8 Mt/y in 2005 if demand remains strong.

Pine Valley Mining Corp.'s Willow Creek project started coal production in June 2004 with financing from Marubeni Corporation of Japan. Marubeni has also made a commitment to purchase 600 000 t of coal over the two-year period. The Willow Creek coal mine is located approximately 45 km west of the town of Chetwynd in northeastern British Columbia. The company expects to produce 95 000 t per month by September 2004 and to reach an annual production rate of 1.1 Mt with a mine life of 14 years. The company is producing pulverized coal injection (PCI) coal and coking coal. The product will be marketed in Japan, Korea and Taiwan.

Grande Cache Coal Corporation's (GCC) coal project near the town of Grande Cache is proceeding on schedule. GCC's coal properties were obtained from Smoky River Coal Ltd., which mined coal in the Grande Cache area for more than 30 years. GCC received regulatory approval from the Alberta government in 2003. In May 2004, GCC started to sell shares on the Toronto Stock Exchange to raise capital to equip the underground mine and to refurbish the coal processing plant. It also signed an agreement with North American Enterprise Ltd. to construct the access road and to develop the underground mine and mining service at the surface mine. The company expects coal production to begin by the end of 2004. The company plans to scale up coal output with an initial projection of 750 000 t of coking coal in the first year and to reach a production level of 2 Mt/y within five years. The mine life is expected to be 12 years. The coal will be exported to overseas customers.

The Wolverine coal project, under the ownership of Western Canadian Coal Corporation, submitted additional information on the project to the B.C. Environmental Assessment Office in May 2004. The company expects to begin construction on the project by late fall 2004 with coal production beginning in 2005. The project is located in Tumbler Ridge, an historical coal-producing region. The company expects an initial production rate of 1.6 Mt/y of coking coal from the Perry Creek and Mt. Spieker deposits. This site is expected to increase production to 5 Mt/y within five years with an anticipated mine life of 15 years. Wolverine has the advantage of using an existing infrastructure, which includes a deep-sea shipping terminal, a railway network, power supply, and a full-service community.

Located in southern British Columbia near the town of Princeton, Compliance Coal Corp. has initiated the Basin project. This project is expected to produce 400 000 t/y of thermal coal to supply cement manufacturers and other industrial users in British Columbia and the northwestern United States. In 2003, Compliance Coal produced 12 000 t of coal.

In Alberta, construction of the new coal-fired generation unit at the Genesee Generation Station continued. The new unit will require additional subbituminous coal mining capacity at the adjacent Genesee mine. The Brooks mine and power project, initiated by Fording Inc. in 2000, was acquired by Luscar as a result of coal industry restructuring in 2003. The Alberta government requested additional information on the project's environmental assessment application in 2003. The new owner, Luscar, is currently reviewing the environmental assessment application and has not yet provided a response. The project, located in Brooks, Alberta, would include a surface coal mine plus a two-unit, 1000-MW coal-fired power generation plant.

In December 2003, the Nova Scotia government issued a call for proposals for exploration and development in four areas of the Sydney Coalfield on Cape Breton Island. The provincial government also announced that it is ready to tender the mineral rights to the Donkin resource. In April 2004, the government selected a consultant to assist with managing its tendering process for the mineral rights to the Donkin resource. In May, the province accepted proposals from three companies to explore and develop the Sydney Coalfield. Nova Scotia is rich in coal resources and a return of productive coal mining operations will certainly provide economic benefits to the local communities and to the province.

ENVIRONMENT

The Canadian coal industry has made progress with respect to environmental concerns such as the disturbance of land, acid mine drainage, greenhouse gas (GHG) emissions, and the production of particulate associated with the burning of coal. Some coal mining companies have already been recognized for their successful environmental management programs.

New coal mines and mine expansions are required to have environmental assessments under provincial legislation and, in some cases, also require a federal environmental review under the *Canadian Environmental Assessment Act*. Environmental assessments ensure that mining activities, such as the removal of vegetation, relocation of overburden, construction of roads, reclamation of previous mined areas, and mining operations, manage the negative effect on the environment.

Canada and the private sector have invested significant amounts of money in the development of Clean Coal Technologies (CCT) designed to enhance both the efficiency and the environmental acceptability of coal extraction, preparation and consumption.

Natural Resources Canada has been collaborating on a project with the Canadian Clean Power Coalition (CCPC)

to retrofit an existing coal-burning power plant to reduce GHG emissions by 50%. The CCPC also hopes to build a new plant capable of reducing emissions by up to 90% that will serve as a prototype for future plant construction. In Edmonton, Alberta, TransAlta and EPCOR's coal-fired unit, the Genesee 3, will reduce GHG emissions by up to 50% with new clean coal technologies.

OUTLOOK

Canadian coal producers are excited about rising demand for coal worldwide, particularly the increasing demand for coking coal. Elk Valley Coal has pre-sold its 2004 projected production; however, new purchase inquiries keep coming in. Elk Valley Coal, the sole coking coal producer in Canada, will operate at full capacity to meet the demand. Thermal coal production in Canada is expected to remain the same as the majority of production is under long-term contracts.

Coal consumption is also expected to remain unchanged in the short term. In the long term, consumption for coal-fired electricity generation is expected to decline as Ontario plans to phase out coal-fired electricity generation. However, both British Columbia and Nova Scotia are encouraging diversity in energy development, including coal and coal-fired electricity generation.

Coal exports are expected to increase about 2-3 Mt to 27 or 28 Mt. It is expected that world demand for coking coal will keep rising for a while as economic and industrial activities are booming in Asia, especially in China, and Latin America, particularly in Brazil. Coal imports are expected to remain unchanged in the short term and are expected to decline in the long term as Ontario's plan to reduce coal-fired power generation will result in reduced coal imports.

CANADIAN COAL-RELATED WEB SITES

The Coal Association of Canada:	www.coal.ca
Fording Canadian Coal Trust:	www.fording.ca
Teck Cominco Ltd.:	www.teckcominco.com
Elk Valley Coal Corp.:	www.elkvalleycoal.ca
Sherritt International Corp.:	www.sherritt.com
Luscar Energy Partnership:	www.sherritt.com
Luscar Coal Ltd.:	www.luscar.com
Hillsborough Resources Ltd.:	www.hillsboroughresources.com
Quinsam Coal Corporation:	www.quinsam.com

Pine Valley Mining Corp.:	www.pinevalleycoal.com
Grande Cache Coal Corp.:	www.gccoal.com
Western Canadian Coal Corp.:	www.westerncoal.com
Compliance Energy Corp.:	www.complianceenergy.com

NOTE TO READERS

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Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to Chapter 64. (2) Information in this review was current as of July 1, 2004. (3) This and other reviews, including previous editions, are available on the Internet at www.nrcan.gc.ca/mms/cmty/com_e.html.

TARIFFS

Item No.	Description	Canada			United States	EU	Japan
		MFN	GPT	USA	Canada	Conventional Rate (1)	WTO (2)
27.01	Coal, briquettes, ovoids and similar solid fuels manufactured from coal; coal whether or not pulverized, but not agglomerated						
2701.11.00	Anthracite	Free	Free	Free	Free	Free	Free
2701.11.00.10	Buckwheat No. 4, 5 or 6	Free	Free	Free	Free	Free	Free
2701.11.00.20	Buckwheat No. 1, 2 or 3	Free	Free	Free	Free	Free	Free
2701.11.00.30	Egg, stove or nut size	Free	Free	Free	Free	Free	Free
2701.11.00.90	Other	Free	Free	Free	Free	Free	Free
2701.12.00	Bituminous coal; metallurgical coal	Free	Free	Free	Free	Free	Free
2701.12.00.11	High volatile	Free	Free	Free	Free	Free	Free
2701.12.00.12	Low volatile	Free	Free	Free	Free	Free	Free
2701.12.00.91	Other high volatile	Free	Free	Free	Free	Free	Free
2701.12.00.92	Other low volatile	Free	Free	Free	Free	Free	Free
2701.19.00	Other coal	Free	Free	Free	Free	Free	Free
2701.20.00	Briquettes, ovoids and similar solid fuels manufactured from coal	Free	Free	Free	Free	Free	3.9%
27.02	Lignite, whether or not agglomerated, excluding jet	Free	Free	Free	Free	Free	Free
2702.10.00	Lignite, whether or not pulverized, but not agglomerated	Free	Free	Free	Free	Free	Free
2702.20.00	Agglomerated lignite	Free	Free	Free	Free	Free	Free
2704.00.00	Coke and semi-coke of coal, of lignite or of peat, whether or not agglomerated; retort carbon; coke and semi-coke of coal	Free	Free	Free	Free	Free	Free - 3.2%
2704.00.11	Commercially suitable for use as fuel	Free	Free	Free	Free	Free	Free - 3.2%
2704.00.19	Coke and semi-coke of coal; other	Free	Free	Free	Free	Free	Free - 3.2%
2704.00.90	Coke and semi-coke of coal, of lignite or of peat, retort carbon; other	Free	Free	Free	Free	Free	Free - 3.2%

Sources: Canadian *Customs Tariff*, effective January 2004, Canada Border Services Agency; *Harmonized Tariff Schedule of the United States*, 2004; *Official Journal of the European Union* (October 30, 2003 Edition); *Customs Tariff Schedules of Japan*, 2003.

(1) The customs duties applicable to imported goods originating in countries that are Contracting Parties to the General Agreement on Tariffs and Trade or with which the European Community has concluded agreements containing the most-favoured-nation tariff clause shall be the conventional duties shown in column 3 of the Schedule of Duties. (2) WTO rate is shown; lower tariff rates may apply circumstantially.

TABLE 1. CANADIAN COAL PRODUCTION AND TRADE, 2001-03

	2001		2002		2003	
	(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
SHIPMENTS						
Nova Scotia	x	x	x	x	x	x
New Brunswick	165 000	19 923	175 000	19 944	141 000	17 083
Saskatchewan	x	x	x	x	x	x
Alberta	30 911 000	389 377	30 485 000	384 586	28 226 000	330 483
British Columbia	27 008 000	959 291	24 398 000	1 034 859	23 099 000	999 985
Total	70 354 500	1 557 115	66 608 000	1 600 506	62 163 000	1 494 485
EXPORTS						
2701.11 Anthracite	13	5 397	-	-	8 279	1 268 002
2701.12 Bituminous coal, metallurgical						
Japan	9 760 529	603 413	8 925 934	573 850	7 486 972	445 334
South Korea	3 773 307	227 966	3 203 568	208 957	3 268 468	190 294
United States	2 088 111	181 912	1 592 612	150 666	1 363 065	113 371
Brazil	1 578 242	92 670	1 172 716	80 401	1 835 371	109 887
Netherlands	1 567 537	113 050	1 036 453	79 643	1 250 360	84 082
United Kingdom	1 167 900	71 761	1 113 706	76 168	1 077 984	64 740
Germany	1 151 882	75 880	1 046 394	74 744	1 478 163	99 476
Taiwan	1 046 865	61 907	1 077 313	67 082	1 077 311	67 027
Italy	1 257 643	75 026	705 458	46 748	993 994	58 245
Turkey	781 777	52 496	1 014 403	86 154	780 474	57 687
France	411 573	25 963	259 266	20 319	324 399	23 750
Egypt	321 090	18 345	266 224	19 556	444 551	34 864
Spain	114 923	7 601	331 850	19 188	391 718	20 351
Mexico	436 648	26 393	257 398	16 764	474 067	24 541
Pakistan	153 678	7 347	257 166	15 937	194 846	10 538
Belgium	237 211	14 104	227 569	15 811	115 893	6 785
Chile	633 669	31 144	259 076	14 337	231 000	14 312
Finland	301 768	20 053	146 909	10 901	196 777	12 136
China	-	-	-	-	604 350	33 815
Iran	-	-	-	-	68 859	5 602
Romania	-	-	-	-	57 783	3 693
Others	130 115	85 732	69 684	5 355	-	-
Total	26 914 468	1 715 603	22 963 699	1 582 580	23 716 405	1 480 528
2701.12 Bituminous coal, other						
South Korea	2 011 545	77 888	1 271 395	48 811	390 817	13 403
Japan	525 783	23 211	462 148	24 734	266 558	8 135
United States	166 080	7 680	202 416	11 264	431 573	34 595
Chile	-	-	142 147	5 970	118 251	4 019
China	-	-	-	-	64 606	3 074
Total (1)	2 703 408	108 780	2 102 084	92 438	1 271 805	63 226
2701.19 Other coal						
United States	140	62	369	170	1 440	447
Total (1)	160	73	809	382	1 771	524
2702.10 Lignite whether or not pulverized, but not agglomerated						
United States	68 339	7 770	78 307	9 095	74 632	7 846
Total (1)	68 339	7 770	78 307	9 095	74 726	7 852
2702.20 Agglomerated lignite						
United States	10 063	2 157	40 625	6 720	32 208	4 765
Total (1)	10 063	2 157	40 661	6 727	32 208	4 765
Total exports	29 696 451	1 834 388	25 185 560	1 691 222	25 105 194	1 558 163

TABLE 1 (cont'd)

	2001		2002		2003	
	(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
IMPORTS						
2701.11 Anthracite						
United States	309 566	37 350	244 347	29 930	89 429	9 804
China	120 803	18 547	88 211	12 364	85 379	12 468
Russia	44 527	4 948	41 826	4 204	94 029	6 652
Ukraine	19 819	2 070	48 821	4 383	37 398	2 848
Total (1)	494 725	62 926	423 310	50 916	306 303	31 792
2701.12 Bituminous coal, metallurgical						
United States	3 942 073	226 566	4 291 268	279 715	3 263 576	177 744
Colombia	16 970	1 098	23 967	3 321	8 364	1 099
Total (1)	3 986 872	229 475	4 315 235	283 037	3 271 947	178 844
2701.12 Bituminous coal, other						
United States	10 783 930	511 553	8 408 993	481 058	8 744 139	439 652
Colombia	415 624	31 192	955 701	62 441	531 486	25 190
Venezuela	261 991	20 684	354 817	28 339	666 495	38 275
United Kingdom	–	–	49 517	4 217	43 478	2 439
Argentina	–	–	–	–	41 360	3 270
Norway	–	–	–	–	38 939	1 778
Total (1)	11 461 545	563 429	9 823 854	580 787	10 065 955	510 610
2701.19 Other coal						
United States	1 436 406	78 895	7 009 139	128 466	7 716 243	131 833
Colombia	1 979 905	90 266	1 007 614	46 945	1 321 736	42 950
Venezuela	65 771	3 298	54 144	2 614	–	–
South Africa	–	–	–	–	70 281	1 982
Total (1)	3 482 155	172 461	8 072 205	178 088	9 115 387	177 001
2701.20 Briquettes, ovoids and similar solid fuels manufactured from coal						
United States	2 957	316	234	29	1 195	133
Total (1)	3 070	325	239	29	1 248	135
2702.10 Lignite whether or not pulverized, but not agglomerated						
United States	1 545	164	1 707	162	1 702	173
2702.20 Agglomerated lignite						
United States	35	9	–	–	4	...
Total imports	19 429 950	1 028 779	22 636 552	1 093 020	22 762 546	898 556

Sources: Natural Resources Canada; Statistics Canada.
– Nil; . . . Amount too small to be expressed; x Confidential.
(1) Total includes other countries.
Note: Numbers may not add to totals due to rounding.

TABLE 2. CANADIAN COKE TRADE, 2001-03

		2001		2002		2003	
		(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
EXPORTS							
2704.00	Coke and semi-coke of coal, of lignite or of peat, whether or not agglomerated; retort carbon						
	United States	57 982	15 436	95 853	11 310	104 920	13 197
	Total (1)	57 982	15 436	97 134	11 757	117 787	14 043
IMPORTS							
2704.00	Coke and semi-coke of coal, of lignite or of peat, whether or not agglomerated; retort carbon						
	United States	1 122 223	121 059	604 168	66 939	415 488	65 659
	China	142 621	13 859	172 310	20 072	93 194	17 076
	Brazil	–	–	43 833	4 171	75 561	7 581
	Total (1)	1 291 647	137 082	827 500	91 181	655 292	105 523

Sources: Natural Resources Canada; Statistics Canada.

– Nil.

(1) Total includes other countries.

Note : Numbers may not add to totals due to rounding.

TABLE 3. COAL PRODUCTION BY TYPE AND PROVINCE, 1990-2003

	Alberta			British Columbia	New Brunswick	Nova Scotia	Saskatchewan	Canada
	Bituminous	Subbituminous	Total	Bituminous	Bituminous	Bituminous	Lignite	Total
	(000 tonnes)							
1990	9 153	21 252	30 405	24 556	548	3 415	9 407	68 331
1991	10 312	22 242	32 554	24 963	498	4 138	8 981	71 134
1992	10 508	23 020	33 528	17 174	399	4 486	10 027	65 614
1993	11 498	23 660	35 159	20 628	389	3 647	9 000	68 824
1994	10 195	25 489	35 684	22 604	331	3 509	10 684	72 815
1995	11 523	25 621	37 144	23 349	263	2 482	10 739	74 979
1996	11 164	24 985	36 150	25 420	272	3 171	10 838	75 853
1997	10 560	25 782	36 343	27 878	173	2 715	11 652	78 762
1998	10 871	25 285	36 156	24 866	272	2 118	11 790	75 204
1999	9 903	24 229	34 203	24 844	251	1 537	11 659	75 204
2000	6 728	24 168	30 896	25 681	229	1 165	11 190	69 163
2001	5 971	24 940	30 911	27 007	165	881	(a) 11 390	70 355
2002	4 957	25 528	30 485	24 398	175	x	(a) 11 365	66 608
2003 (p)	3 346	24 880	28 226	23 099	141	x	(a) 10 665	62 163

Source: Natural Resources Canada, Statistics Canada

(p) Preliminary; x Confidential.

(a) Saskatchewan Bureau of Statistics, *Monthly Statistical Review*.

TABLE 4. CANADIAN COAL CONSUMPTION, 1990-2003

	Electricity	Steel	Industry	Producer	Non-Energy	Total
	(000 tonnes)					
1990	42 136	4 996	1 730	144	349	49 354
1991	43 873	4 906	1 473	165	315	50 732
1992	45 808	4 885	1 504	88	311	52 596
1993	43 112	4 665	1 392	128	386	49 683
1994	45 273	4 780	1 513	129	370	52 065
1995	45 954	4 189	1 595	186	415	52 338
1996	46 607	4 446	1 641	166	442	53 302
1997	49 799	4 490	1 721	144	450	56 605
1998	52 455	4 119	1 713	105	430	58 821
1999	52 037	4 360	1 745	179	382	58 703
2000	55 824	4 265	1 959	160	469	62 676
2001	55 537	4 255	1 870	335	396	62 393
2002	55 590	4 201	1 970	152	413	62 325
2003 (e)	55 000	4 000	1 900	200	400	61 500

Sources: Natural Resources Canada, Statistics Canada.
(e) Estimate.

TABLE 5. CANADIAN COAL TRADE, 1990-2003

	Metallurgical		Thermal		Canada	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
EXPORTS						
1990	31 986	2 109 070	...	...	32 058	2 118 544
1991	32 402	2 043 515	...	...	32 483	2 051 543
1992	25 910	1 666 905	...	...	26 134	1 684 015
1993	28 249	1 845 140	...	...	28 352	1 855 193
1994	31 243	2 039 875	...	...	31 311	2 047 200
1995	34 054	2 228 708	...	...	34 215	2 238 002
1996	34 594	2 495 138	...	...	34 697	2 503 686
1997	35 614	2 572 747	...	...	35 886	2 594 762
1998	27 972	2 060 927	5 215	301 593	33 186	2 362 520
1999	30 289	1 746 020	3 672	154 126	33 960	1 900 146
2000	30 305	1 632 441	2 195	89 358	32 501	1 721 799
2001	26 914	1 715 603	2 782	118 792	29 696	1 834 395
2002	22 964	1 582 580	2 222	108 642	25 185	1 691 222
2003 (p)	23 716	1 480 528	1 389	77 651	25 105	1 558 178
IMPORTS						
1990	4 021	185 421	10 819	426 879	14 840	612 300
1991	4 171	189 627	7 665	288 520	11 835	478 147
1992	4 733	216 429	9 017	375 259	13 750	591 688
1993	4 721	227 404	4 002	183 819	8 723	411 223
1994	4 048	201 583	5 007	232 349	9 055	433 932
1995	4 183	211 235	5 566	264 198	9 749	475 434
1996	5 465	283 250	6 183	288 448	11 647	571 697
1997	4 616	238 944	10 202	453 898	14 818	692 843
1998	4 536	258 201	15 318	671 063	19 854	929 264
1999	3 857	204 018	16 103	717 592	19 960	921 609
2000	3 493	183 214	15 932	755 576	19 425	938 790
2001	3 987	229 475	15 443	799 304	19 430	1 028 779
2002	4 315	283 037	18 321	809 983	22 636	1 093 020
2003 (p)	3 272	178 844	19 491	719 712	22 763	898 556

Source: Natural Resources Canada.
... Amount too small to be expressed; (p) Preliminary.